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09/937,611	01/08/2002	Michitaka Fukuda	2241/50458	2240

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Crowell & Moring
PO Box 14300
Washington, DC 20044-4300

EXAMINER	
TORRES, JUAN A	

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/937,611	FUKUDA, MICHITAKA	
	Examiner	Art Unit	
	Juan A. Torres	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *3,4,7-9,26 and 27* is/are allowed.

6)☒ Claim(s) *5,6 and 10-13* is/are rejected.

7)☒ Claim(s) *14-25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *04-26-2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 04/26/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

In view of the amendment filed on 04/26/2006, the Examiner withdraws Specification objections of the previous Office action

The amendment filed 04/26/2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material, which is not supported by the original disclosure is as follows:

a) "and, on the data included in the block(s) not notified, the corresponding previous data stored in the data receiving component are used" (page 5 end of paragraph beginning in line 8);

b) "At this time, since the data in the other blocks are not changed, the data in the other blocks will not be transmitted." (in paragraph beginning on page 11 line 17); and

c) "That is, the block information notifying the block(s) to be transmitted is transmitted first and then the data included in the block(s) notified by the block information is transmitted, while the data included in the block(s) not notified is not

transmitted, and the object of the present invention to improve the transfer speed can be achieved." (at the end of paragraph beginning on page 7 line 21);

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

In view of the amendment filed on 04/26/2006, the Examiner withdraws 35 USC 112 first paragraph to claims 1-4, 7-9 and 14-25 of the previous Office action.

In view of the amendment filed on 04/26/2006, the Examiner withdraws 35 USC 112 second paragraph to claims 1-4 and 7-9 of the previous Office action.

In view of the amendment filed on 04/26/2006, the Examiner withdraws 35 USC 112 second paragraph to claims 2, 4, 7 and 9 of the previous Office action.

In view of the amendment filed on 04/26/2006, the Examiner withdraws 35 USC 112 second paragraph to claims 5, 10-11 and 14-16 of the previous Office action.

In view of the amendment filed on 04/26/2006, the Examiner withdraws 35 USC 112 second paragraph to claims 12 and 20-22 of the previous Office action.

Response to Arguments

Applicant's arguments with respect to claims 5, 6 and 10-13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

Claims 5, 6 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graves (US 4825286 A) in view of Wu (US 5376968 A).

As per claim 5, Graves discloses a system for synchronous serial communication which comprises a serial data transmitting component (column 1 lines 10-28; column 5

lines 32-40; column 8 lines 24-39) comprising a clock that produces a clock signal having clock signal level transitions (figure 1 block 14 column 4 line 65 to column 5 line 12). Graves doesn't specifically disclose a storage means to store data fed by an external device; a decision means to calculate the number of clock cycles required for the transmission of the data for each of a number of transmission modes, and to decide which mode will allow the transmission of the data to occur in the least number of clock cycles; and an output means to choose the mode which has been decided by the decision means as allowing the transmission of the data to occur in the least number of clock cycles, to read the data stored in the storage means, and to transmit the data through the communication mode thus chosen. Wu discloses a storage means to store data fed by an external device (abstract; figure 2 block 90; figure 4 block 160; column 10 lines 5-60); a decision means to calculate the number of clock cycles required for the transmission of the data for each of a number of transmission modes, and to decide which mode will allow the transmission of the data to occur in the least number of clock cycles (abstract; figure 2 block 80; figure 4 block 152a; column 10 lines 5-44. The comparator will decide with mode of operation will need less amount of data, so it will be transmitted with least number of clock cycles); and an output means to choose the mode which has been decided by the decision means as allowing the transmission of the data to occur in the least number of clock cycles, to read the data stored in the storage means, and to transmit the data through the communication mode thus chosen (abstract; figure 2 block 82a-82b; figure 4 block 152-152a; column 10 line 5-60. The switch 82 will select the mode with least amount of data and will allow the transmission

in that mode of the store data in the frame store 90. Examiner NOTE: Because the clock is synchronous in transmission and reception and because the clock is fix, the file that results to have least amount of data, will be transmitted in least amount of clock cycles). Graves and Wu teachings are analogous art because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate adaptive compression circuit disclosed by Wu with the digital video signals disclosed by Graves. The suggestion/motivation for doing so would have been to enable the efficient transmission of digital video signals over conventional communication channels (Wu column 1 lines 55-57).

As per claim 6, Graves discloses a system for synchronous serial communication, which comprises a serial data transmitting component (column 1 lines 10-28; column 5 lines 32-40; column 8 lines 24-39). Graves doesn't specifically disclose storage means to store data; an analysis means to identify the communication mode of received data based on the received mode information; and a control means to cause the received data to be stored in the storage means according to the mode identified by the analysis means. Wu discloses a storage means to store data (abstract; figure 5 block 202; figure 6 block 218; column 10 lines 5-60); an analysis means to identify the communication mode of received data based on the received mode information (abstract; figure 5 block 208; figure 6 block 212; column 12 line 14-45); and a control means to cause the received data to be stored in the storage means according to the mode identified by the analysis means (abstract; figure 5 block 206; figure 6 block 222; column 12 lines 14-45). Graves and Wu teachings are analogous art because they are

from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate adaptive compression circuit disclosed by Wu with the digital video signals disclosed by Graves. The suggestion/motivation for doing so would have been to enable the efficient transmission of digital video signals over conventional communication channels (Wu column 1 lines 55-57).

As per claim 10, Graves and Wu disclose claim 5. Wu also discloses that when it is required to transmit a command which concerns with the treatment of data already transmitted, firstly transmitted is command data indicating the current data carries a command concerning with the treatment of the data already transmitted, and then transmitted is the block information from which it is possible to identify the block(s) to be treated out of the data previously transmitted (abstract; figure 1-2 blocks 58, and 80; figure 4 block 152a-152; column 9 line 418; column 10 lines 29-44; and column 11 lines 42-64). Graves and Wu teachings are analogous art because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate adaptive compression circuit disclosed by Wu with the digital video signals disclosed by Graves. The suggestion/motivation for doing so would have been to enable the efficient transmission of digital video signals over conventional communication channels (Wu column 1 lines 55-57).

As per claim 11, Graves and Wu discloses claim 10. Wu also discloses the command includes at least either an invert command or a bit shift command (abstract; figure 4 block 152-152a there is only 2 options so it is a invert command; column 11

lines 42-64). Graves and Wu teachings are analogous art because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate adaptive compression circuit disclosed by Wu with the digital video signals disclosed by Graves. The suggestion/motivation for doing so would have been to enable the efficient transmission of digital video signals over conventional communication channels (Wu column 1 lines 55-57).

As per claim 12, Graves discloses a system for synchronous serial communication which comprises a serial data transmitting component (column 1 lines 10-28; column 5 lines 32-40; column 8 lines 24-39) comprising a clock that produces a clock signal having clock signal level transitions (figure 1 block 14 column 4 line 65 to column 5 line 12). Graves doesn't specifically disclose a memory to store data fed by an external device; a processing unit which calculates the number of clock cycles required for the transmission of the data for each of a number of transmission modes, and to decide which mode will allow the transmission of the data to occur in the least number of clock cycles; and a selector unit which select a mode which has been decided by the processing unit to read the data stored in the storage means, and to transmit the data through the communication mode thus chosen. Wu discloses a memory to store data fed by an external device (abstract; figure 2 block 90; figure 4 block 160; column 10 lines 5-60); a processing unit which calculates the number of clock cycles required for the transmission of the data for each of a number of transmission modes, and to decide which mode will allow the transmission of the data to occur in the least number of clock cycles (abstract; figure 2 block 80; figure 4 block 152a; column 10 lines 5-44. The

comparator will decide with mode of operation will need less amount of data, so it will be transmitted with least number of clock cycles); and a selector unit which select a mode which has been decided by the processing unit to read the data stored in the storage means, and to transmit the data through the communication mode thus chosen (abstract; figure 2 block 82a-82b; figure 4 block 152-152a; column 10 line 5-60. The switch 82 will select the mode with least amount of data and will allow the transmission in that mode of the store data in the frame store 90. Examiner NOTE: Because the clock is synchronous in transmission and reception and because the clock is fix, the file that results to have least amount of data, will be transmitted in least amount of clock cycles)

As per claim 13, Graves discloses a system for synchronous serial communication, which comprises a serial data transmitting component (column 1 lines 10-28; column 5 lines 32-40; column 8 lines 24-39). Graves doesn't specifically disclose a memory to store data; an analysis unit that identifies a communication mode of received data based on the received mode information; and a control unit, which causes the received data to be stored in the storage means according to the mode identified by the analysis unit. Wu discloses a memory to store data (abstract; figure 5 block 202; figure 6 block 218; column 10 lines 5-60); an analysis unit that identifies a communication mode of received data based on the received mode information (abstract; figure 5 block 208; figure 6 block 212; column 12 line 14-45); and a control unit which causes the received data to be stored in the storage means according to the mode identified by the analysis unit (abstract; figure 5 block 206; figure 6 block 222; column 12 lines 14-45). Graves and Wu teachings are analogous art because they are

from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate adaptive compression circuit disclosed by Wu with the digital video signals disclosed by Graves. The suggestion/motivation for doing so would have been to enable the efficient transmission of digital video signals over conventional communication channels (Wu column 1 lines 55-57).

Allowable Subject Matter

Claims 14-25 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 3, 4, 7-9, 26 and 27 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: Claims 3, 4, 7-9, 26 and 27 are allowed because the references cited fail to teach, as applicant has, a method for synchronous serial communication comprising calculating an amount of time required for a data transmission based on a first serial transmission mode; calculating an amount of time required for a data transmission based on a second serial transmission mode; selecting either the first mode or the second mode so that serial data transmission take less time, where the transmitting of the data in the second mode comprises dividing the data into blocks; transmitting block information notifying the block(s) to be transmitted; transmitting only the data included in the block(s) notified by the block information; and using previously stored data in a data

receiving component for the data included in the blocks(s) not notified, as the applicant has claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Juan Alberto Torres
05-05-2006

TEMESGHEN GHEBRETINSAE
PRIMARY EXAMINER
5/6/06